

Patent Claims

1. A process for producing veneer strips, chipped wood or the like, individual pieces of wood being  
5 joined together, with grains parallel, to form a group and then a multiplicity of such groups being arranged one behind the other, with grains parallel, to form a closely packed line, whereupon this line is then fed in its longitudinal direction, transverse to the wood-  
10 grain direction, to a chipping tool, wherein the leading group conveyed up against the chipping tool is subjected, via the following group butting against it, to a longitudinal compressive force which acts in the longitudinal direction of the line, which exceeds the  
15 relative cutting force to which the leading group is subjected by the chipping tool, and which is largely absorbed by the leading group, which, by way of its advancement speed being braked, acts as an abutment.
- 20 2. The process as claimed in claim 1, wherein the abovementioned longitudinal compressive force produces, at least between the front two groups in the line, an adhesion which exceeds the abovementioned cutting  
25 force.
3. The process as claimed in claim 1 or 2, wherein, in order to increase the adhesion between successive groups, the mutually facing longitudinal edges of the  
30 latter are moistened, preferably immediately before the groups are formed.
4. The process as claimed in claim 1, 2 or 3, wherein the longitudinal compressive force which is transmitted from the respectively trailing group to the group  
35 preceding it increases over the length of the line in the conveying direction of the latter.
5. The process as claimed in one of the preceding claims, wherein the abovementioned longitudinal

compressive force is produced by conveying elements which act on at least one line-forming group in the conveying direction of the line.

5    6.    The process as claimed in claim 5, wherein conveying elements act with different advancement forces on a plurality of line-forming groups.

7.    The process as claimed in one of the preceding  
10    claims, wherein the group located immediately upstream of the chipping tool is additionally subjected to a preferably preselectable vertical compressive force which acts over the height of the group.

15    8.    The process as claimed in one of the preceding claims, wherein the group located immediately upstream of the chipping tool is additionally subjected to a preferably preselectable horizontal compressive force which acts over the width of the group.

20    9.    The process as claimed in claim 7 or 8, wherein the vertical and/or horizontal force is eliminated at a distance from the chipper tool which corresponds approximately to once to twice the thickness of the  
25    veneer strips, chipped wood or the like which is/are to be produced.

10.    The process as claimed in one of the preceding  
30    claims, wherein each group is formed from board portions which are positioned flatly one upon the other and of which the board thickness corresponds to the width of the veneer strips which are to be produced.

11.    An apparatus for carrying out the process as  
35    claimed in one of the preceding claims, having

- a)    a chipping tool,
- b)    a feed means for a line which is to be chipped and is made up of a multiplicity of

groups of individual pieces of wood arranged closely one behind the other,

and having

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c) a conveying arrangement which conveys the line in its longitudinal direction toward the chipping tool and comprises the conveying elements which subject the line to an advancement force in the advancement direction such that the front group in the line, which runs up in a braked manner against the chipping tool, is subjected, via the group following it, to a longitudinal compressive force which exceeds the relative cutting force to which the leading group is subjected by the chipping tool.

12. The apparatus as claimed in claim 11, wherein conveying elements act with different advancement forces on the groups, the conveying elements which act on the group which runs up against the chipping tool causing this group to be braked in relation to following groups, with the result that the leading group has the effect of a run-on brake.

13. The apparatus as claimed in claim 11 or 12, wherein the conveying elements are designed as chain, belt or roller conveyers.

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14. The apparatus as claimed in claim 11, 12 or 13, wherein the conveying elements form the base and/or the sides and/or a top covering of the abovementioned feed means.

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15. The apparatus as claimed in claim 13 or 14, wherein the conveying elements comprise a multiplicity of overlapping conveying chains.

16. The apparatus as claimed in one of claims 11 to 15, wherein the conveying elements can be driven separately from one another and at different speeds.

5 17. The apparatus as claimed in one of claims 11 to 16, which comprises a vertically drivable pressure-exerting bar for acting on the leading group with a vertical compressive force.

10 18. The apparatus as claimed in one of claims 11 to 17, which comprises contact-pressure bars which are arranged immediately upstream of the chipping tool, on both sides of the feed means, can be driven horizontally, transversely to the feed means, and are  
15 intended for acting on the leading group with a horizontal compressive force.

19. The apparatus as claimed in one of claims 11 to 18, wherein the feed means forms an angle with the  
20 horizontal and/or the vertical.

20. The apparatus as claimed in claim 19, wherein the feed means is subdivided by at least one central partition wall running in the feed direction.

25 21. The apparatus as claimed in one of claims 11 to 20, wherein a feed conveyor for transferring the groups to the feed means is provided upstream of the feed means.

30 22. The apparatus as claimed in one of claims 11 to 21, wherein the chipping tool is a disk-type chipper.

23. The apparatus as claimed in claim 22, wherein a  
35 stationary bridging bar is arranged immediately upstream of the disk-type chipper, just a few tenths of a millimeter upstream of the rotating knives thereof.

24. The apparatus as claimed in one of claims 11 to 21, wherein the chipping tool is a knife-ring flaker.